UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,605	10/22/2003	Stephen D. Shew	PAT 2720-2	4817

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EXAMINER
JONES, PRENELL P

ART UNIT	PAPER NUMBER
2619	

NOTIFICATION DATE	DELIVERY MODE
07/28/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35 and 37-54* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *48 and 49* is/are allowed.

6)☒ Claim(s) *1-35 and 37-54* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date *4/10/08*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

Response to Arguments

1.   Applicant's arguments with respect to claims 1-35 and 37-54 have been considered but

are moot in view of the new ground(s) of rejection.

2.   Applicant argues that the prior art of Wing (US PGPUB 20020109879) and Duncan et al

(US PGPUB 20020154606) neither alone or combined fail to teach or disclose all the limitations

of the newly amended claims, wherein Applicant has added the limitation, the client NEs **_which_**

are not equipped with a routing function.

3.   Examiner agrees that the cited prior art does not teach or suggest the newly added

limitation to the claims," **_which are not equipped with a routing function._**" So, the previous

102 and 103 rejections are withdrawn. However, with Applicants' most recent amendment to

the claims, Examiner has performed an additional search.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

        A person shall be entitled to a patent unless –

        (b) the invention was patented or described in a printed publication in this or a foreign
        country or in public use or on sale in this country, more than one year prior to the date of
        application for patent in the United States.

5.   Claims 1-12, 14-35, 37-47 and 50-54 are rejected under 35 U.S.C. 102(b) as being

anticipated by Ayandeh (US Pat 6,069,895).

        Regarding claim 1, 14 and 50, Ayandeh discloses a distributed route server wherein

routing functions are distributed throughout the processing elements/switch node/line cards, and

the controller and routing algorithm associated with the route server assist in the exchange of network control packets among processing element/network switch node/line cards and a route server in order to maintain a link-state topology database that reflect the current network connections (true topology), and (Abstract, Fig. 2 & 5, col. 6, line 35-67). In addition, routing algorithm along with topology database are used in configuring network topology (col. 1, line 26-67, col. 2, line 9-23).

Regarding claim 2, Ayandeh further discloses routing algorithm implementing a routing function to multiple nodes/line cards associated with a peer group in a multi-cast fashion (col. 3, line 1-30, col. 9, line 17-40, processing entity implement routing function by running a single instance of routing protocol).

Regarding claim 3, 4, 38 and 51 Ayandeh further discloses that the routing protocol is a distributed routing protocol that include a selection from a group consisting of OSPF, IS-IS and PNNI (Abstract, col. 3, line 60 thru col. 4, line 30).

Regarding claim 5 and 52, Ayandeh further discloses routing protocol, such as OSPF wherein metrics and calculations for determining routing is performed (col. 4, line 14-43).

Regarding claim 6-10, Ayandeh further discloses routing protocol advertising a summary of route information as associated with a peer group and link states (col. 4, line 14 thru col. 5, line 55).

Regarding claim 11 and 53, Ayandeh further discloses that the server includes control connectivity and control processing, therefore, the server is part of a control plane (Fig. 1, col. 5, line 55 thru col. 6, line 35).

Regarding claims 12 and 54, Ayandeh further discloses that the server is in the control plane and separate from the bearer plane (col. 7, line 1-55).

Regarding claim 15, claim 15 includes the limitations of claim 1, but in the form of a computer readable storage medium that includes a program element on a server for execution of desired functions. So, claim 15 is rejected for the same reason that claim 1 is rejected, because it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to utilize executable computer programs as to carry out desired function of a computer device (server).

Regarding claim 16, Ayandeh further discloses routing algorithm implementing a routing function to multiple nodes/line cards associated with a peer group in a multi-cast fashion (col. 3, line 1-30, col. 9, line 17-40, processing entity implement routing function by running a single instance of routing protocol).

Regarding claim 17 and 18, Ayandeh further discloses that the routing protocol is a distributed routing protocol that include a selection from a group consisting of OSPF, IS-IS and PNNI (Abstract, col. 3, line 60 thru col. 4, line 30).

Regarding claim 19, Ayandeh further discloses routing protocol, such as OSPF wherein metrics and calculations for determining routing is performed (col. 4, line 14-43).

Regarding claim 20-24, Ayandeh further discloses routing protocol advertising a summary of route information as associated with a peer group and link states (col. 4, line 14 thru col. 5, line 55).

Regarding claim 25, 35 and 46, claim 25, 35 and 46 includes the limitations of claim 1 and 14, but in the form of a method that includes performing steps for providing routing functions, claim 25 is rejected for the same reason that claim 1 is rejected, because it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to utilize method steps as to carry out desired function of a computer device (server).

Regarding claim 26 and 37, Ayandeh further discloses routing algorithm implementing a routing function to multiple nodes/line cards associated with a peer group in a multi-cast fashion (col. 3, line 1-30, col. 9, line 17-40, processing entity implement routing function by running a single instance of routing protocol).

Regarding claim 27, 28, 38 and 39, Ayandeh further discloses that the routing protocol is a distributed routing protocol that include a selection from a group consisting of OSPF, IS-IS and PNNI (Abstract, col. 3, line 60 thru col. 4, line 30).

Regarding claim 29 and 40, Ayandeh further discloses routing protocol, such as OSPF wherein metrics and calculations for determining routing is performed (col. 4, line 14-43).

Regarding claim 41-45, Ayandeh further discloses routing protocol advertising a

summary of route information as associated with a peer group and link states (col. 4, line 14

thru col. 5, line 55).

Regarding claim 47, Ayandeh further discloses distributed link state information is used

to build a topology database, which in turn, in conjunction with routing algorithm is used to

generate routing tables for directing flows of packet traffic according to QoS criteria (Fig. 1, col.

5, line 55-66).

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

8.   Claims 13, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ayandeh (US Pat 6,069,895) in view of Wing (US PGPUB 20020109879).

Regarding claim 13, s indicated above, Ayandeh discloses a distributed route server wherein routing functions are distributed throughout the processing elements/switch node/line cards, and the controller and routing algorithm associated with the route server assist in the exchange of network control packets among processing element/network switch node/line cards and a route server in order to maintain a link-state topology database that reflect the current network connections (true topology), and (Abstract, Fig. 2 & 5, col. 6, line 35-67). In addition, routing algorithm along with topology database are used in configuring network topology (col. 1, line 26-67, col. 2, line 9-23).

Ayandeh is silent on NEs selected from a group including a packet switch and SONET cross-connect.

In analogous art, Wing discloses utilizing network elements selected in the group of an ATM and SONET cross-connect/packet over SONET (paragraph 0079, 0182, 0285, 0290, 0330 and 0419).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement utilizing network elements selected in the group of an ATM and SONET cross-connect/packet over SONET as taught by Wing with the teachings of Ayandeh for the purpose of manage and control switching capacity over a wider graphical architecture.

Regarding claims 48 and 49, as indicated above, Ayandeh discloses a distributed route server wherein routing functions are distributed throughout the processing elements/switch node/line cards, and the controller and routing algorithm associated with the route server assist in the exchange of network control packets among processing element/network switch node/line cards and a route server in order to maintain a link-state topology database that reflect the

current network connections (true topology), and (Abstract, Fig. 2 & 5, col. 6, line 35-67). In

addition, routing algorithm along with topology database are used in configuring network

topology (col. 1, line 26-67, col. 2, line 9-23).

Ayandeh is silent on NEs being part of a bearer plane of communication network not

previously controlled by a control plane.

In analogous art, Wing discloses an internetworking communication system and method

for providing network configuration and control information, wherein the architecture includes

servers in a WDM optical switching environment wherein communication exists among a

plurality of network elements, such as routers (NEs), whereby the network elements process

(demodulate/decode) control traffic information/control messages via input/output ports

(Abstract, paragraphs 0004, 0079, 0086, 0087, 0102, 0103, 0106, 0107, 0109, 0141, 0322,

0347, 0356, 0364, 0367, 0606, 0942, and MPLS control plane being implemented on OXCs and

LSRs and bearer channels/plane can be activated and deactivated thereby implementing

server/router exclusion from bearer plane (paragraph 0408, 0436, 0461-0469).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to be motivated to implement NEs being part of a bearer plane of communication

network not previously controlled by a control plane as taught by Wing with the teachings of

Ayandeh for the purpose of manage and control switching capacity over a wider graphical

architecture.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant

is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The
examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
may be obtained from either Private PAIR or Public PAIR. Status information for unpublished
applications is available through Private PAIR only. For more information about the PAIR
system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private
PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones
July 15, 2008

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2619
7/21/08